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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,939	04/05/2004	Fred Buchali	Q80563	3035
72875 7590 03/26/2008 SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037				
EXAMINER				
TRAN, DZUNG D				
ART UNIT		PAPER NUMBER		
2613				
NOTIFICATION DATE		DELIVERY MODE		
03/26/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com  
kglyndman@sughrue.com  
USPatDocketing@sughrue.com

### Office Action Summary

**Application No.**

10/816,939

**Applicant(s)**

BUCHALI, FRED

**Examiner**

Dzung D. Tran

**Art Unit**

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a computer readable medium" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 8 claimed "a computer readable medium encoded with a computer program for generating a clock signal out of an electrical data signal". However, the specification and drawing do not provide any specific detail to teach "a computer readable medium encoded with a computer program for generating a clock signal out of an electrical data signal" and how a computer readable medium encoded with a computer program generates a clock signal. Without such detail description, the disclosure does not enable a person of ordinary to made and use the claimed invention.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama et al. US Publication no. 2002/0027692 in view of Pathak et al. US 7,158,727.

Regarding claim 1, Uchiyama discloses in Figure 7, a receiver device for optical data signals, in particular optical data signal in the Gb/s range, comprising:

an opto-electrical conversion unit (i.e., PHOTO DET.) 31, which converts an optical signal, that is received from a local optical source 52 that is external to said receiver device, to a converted electric data signal, that is received from a local optical source 52 external to said receiver device, to a converted electrical data signal;

a frequency multiplier unit 32, which frequency-multiplies the converted electrical data signal; and

a clock recovery unit comprising a phased locked loop circuit PLL (the combination of 40, 40, 51);

wherein the frequency multiplied signal is used to drive the phased locked loop circuit PLL (see Fig. 7);

wherein the frequency multiplier unit 32 performs a frequency multiplication by a factor of  $h$  (i.e.,  $h$  is equivalent to  $n$ ), with  $h$  being a natural number larger than 2 (see paragraph 0061).

Uchiyama does not specifically disclose wherein the receiver device comprises a frequency filter for the spectral power of the electrical data signal, and wherein the frequency filter transmits around  $B/n$ , wherein  $B$  is the bit rate of the electrical data

signal. Pathak discloses in Figure 1 the 1:4 demultiplexer filtering or separating the clock signal 110 from 1-Bit stream data signal. At the time of the invention was made, it would have been obvious to an artisan to replace the DEMUX 1204 of Uchiyama with the filtering demultiplexer of Pathak. One of ordinary skill in the art would have been motivated to do that in order to extract the clock signal from the data signal.

Regarding claim 3, Uchiyama discloses in paragraph 0061, wherein  $h$  being any natural number (i.e.,  $h$  can be = 4).

Regarding claim 4, Pathak discloses the optical data signal are 10 Gb/s or 40 Gb/s signal (col. 2, Table 1; col. 5, lines 35-52).

Regarding claim 5, Uchiyama discloses the clock recovery unit comprises a phase locked loop circuit (the combination of 40, 40, 51 of Figure 7).

Regarding claim 6, Examiner take an official notice that it is well known in the art that the clock recovery unit comprises a filter clock recovery circuit.

Regarding claim 7, Pathak discloses the data transmission system comprises an optical transmission link 100, wherein transmission link has a significant dispersion (it is inherently that dispersion occurs in the optical fiber system).

Regarding claim 8, as far as Examiner understood, Pathak discloses a processor (i.e., equivalent to a computer readable medium; see figure 2).

### ***Response to Arguments***

6. Applicant's arguments with respect to new claims 1, 3-8 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (571) 272-3022.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dzung Tran

03/15/2008

/Dzung D Tran/

Primary Examiner, Art Unit 2613